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WHAT IS CLAIMED IS:

- 5 1. Foam sponge cutting apparatus with both vertical and horizontal cutting devices, comprising an apparatus body, a blade strip frame, two blade strips, two guide wheel units and two blade turning units, a working bench is mounted on the face of the apparatus body, the blade strip frame being bridged over the apparatus body, said cutting apparatus being characterized in that the blade strip frame is disposed with a horizontal cutting device, the left and right columns of the horizontal cutting device being both disposed with guide rails and transmission mechanisms, the blade strip being wound on the guide wheel unit and conducted to form a close winding line with a fixed length including a horizontal working section of the blade strip, a blade turning unit movement control mechanism being movably disposed between the left and right columns of the blade strip frame for up and down moving the blade strip, the other side of the blade strip frame being disposed with a vertical cutting device, the components of the vertical cutting device being similar to those of the horizontal cutting device, while the guide wheel unit being installed in altered direction, the blade turning unit, guide rails and transmission mechanisms being also arranged in altered direction to form a vertical cutting device.
- 10 20 25 30 2. Foam sponge cutting apparatus as claimed in claim 1, wherein the guide wheel unit of the horizontal cutting device includes a driving wheel, a pulley and four guide wheels, the driving wheel being mounted on the lower beam of the blade strip frame and connected with an output shaft of a motor, the blade seat pulley being disposed on left side of the left blade seat of the blade turning unit and positioned on the linear slide bar and meshing with the thread rod thereunder, the first and second guide wheels being mounted at two ends of the upper beam, the upper edges of the two wheels being adjacent to the tangential position, the third guide wheel having a smaller diameter and being disposed on upper side of the driving wheel, the fourth guide wheel being disposed on the upper side of the slide bar of the right column and meshing with the thread rod thereunder, the lower side of the second guide wheel being vertically connected with a

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pneumatic cylinder for loosening the blade strip.

3. Foam sponge cutting apparatus as claimed in claim 1, wherein the blade turning unit of the horizontal cutting device includes a left and a right blade seats, each blade seat including a seat body, a transmission mechanism and a blade holder, a blade strip deflection rectifying mechanism being disposed on one of the blade seats, the blade strip deflection rectifying mechanism being connected with the blade holder of the blade seat, the blade holder being disposed at one end of the blade seat for clamping the blade strip, the right blade seat being hung on the slide bar, the left blade seat being hung on the guide rail and connected with the slide bar on left side.
4. Foam sponge cutting apparatus as claimed in claim 1 or 2, wherein the blade strip is wound over the driving wheel and pulled upward to the second guide wheel, then the blade strip being tangentially pulled to the first guide wheel and further downward pulled to the left blade seat pulley, the blade strip horizontally passing through the left and right blade seats and then being pulled to the fourth guide wheel and then pulled to the third guide wheel, finally, the blade strip being pulled back to the driving wheel to form a close circularly winding line with a fixed length.
5. Foam sponge cutting apparatus as claimed in claim 1, wherein each of the left and right columns of the horizontal cutting device is disposed with a linear slide bar, a thread rod being underlaid on lower side of the linear slide bar, a guide rail being disposed on right side of slide bar of the left column, the right column being disposed with two linear slide bars, a thread rod being also underlaid on lower side of each of the linear slide bar.
6. Foam sponge cutting apparatus as claimed in claim 1, wherein the blade turning unit movement control mechanism includes a motor the output shaft end of which via a toothed belt and a toothed pulley is coupled with a transmission shaft, ~~the left and right ends of the transmission shaft being respectively vertically~~

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~~connected with the linear slide bars and meshing with the thread rods thereunder.~~

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